

Appendix table 4-40.

**Earned doctoral degrees in science and engineering in selected countries and regions, by sex and field: 1997 or most recent year**

| Region/country                 | All<br>doctoral<br>degrees | All S&E<br>doctoral<br>degrees | Natural<br>sciences <sup>a</sup> | Degree fields                   |             |                                 |             |         |
|--------------------------------|----------------------------|--------------------------------|----------------------------------|---------------------------------|-------------|---------------------------------|-------------|---------|
|                                |                            |                                |                                  | Math and<br>computer<br>science | Agriculture | Social<br>sciences <sup>b</sup> | Engineering | Non S&E |
|                                |                            |                                |                                  | Number                          |             |                                 |             |         |
| <b>Male</b>                    |                            |                                |                                  |                                 |             |                                 |             |         |
| <b>Asia total</b> .....        | 13,090                     | 7,151                          | 1,365                            | 327                             | 810         | 769                             | 3,880       | 5,939   |
| Japan <sup>c</sup> .....       | 8,206                      | 4,489                          | 888                              | 144                             | 617         | 514                             | 2,326       | 3,717   |
| South Korea .....              | 4,008                      | 1,966                          | 349                              | 129                             | 153         | 206                             | 1,129       | 2,042   |
| Taiwan .....                   | 876                        | 696                            | 128                              | 54                              | 40          | 49                              | 425         | 180     |
| <b>Europe total</b> .....      | 30,388                     | 19,991                         | 9,642                            | 1,777                           | 634         | 2,837                           | 5,101       | 10,397  |
| France .....                   | 6,743                      | 5,825                          | 2,573                            | 670                             | 101         | 1,038                           | 1,443       | 918     |
| Germany .....                  | 16,404                     | 9,132                          | 4,758                            | 651                             | 336         | 1,286                           | 2,101       | 7,272   |
| United Kingdom .....           | 7,241                      | 5,034                          | 2,311                            | 456                             | 197         | 513                             | 1,557       | 2,207   |
| <b>The Americas total</b> .... | 28,359                     | 19,847                         | 7,207                            | 1,781                           | 883         | 4,047                           | 5,929       | 8,512   |
| Canada .....                   | 2,519                      | 1,802                          | 596                              | 175                             | 137         | 314                             | 580         | 717     |
| Mexico .....                   | 457                        | 249                            | 76                               | 9                               | 35          | 85                              | 44          | 208     |
| United States .....            | 25,383                     | 17,796                         | 6,535                            | 1,597                           | 711         | 3,648                           | 5,305       | 7,587   |
| <b>Female</b>                  |                            |                                |                                  |                                 |             |                                 |             |         |
| <b>Asia total</b> .....        | 2,822                      | 835                            | 205                              | 79                              | 165         | 206                             | 180         | 1,987   |
| Japan <sup>c</sup> .....       | 1,654                      | 520                            | 101                              | 12                              | 115         | 157                             | 135         | 1,134   |
| South Korea .....              | 991                        | 231                            | 81                               | 58                              | 25          | 32                              | 35          | 760     |
| Taiwan .....                   | 177                        | 84                             | 23                               | 9                               | 25          | 17                              | 10          | 93      |
| <b>Europe total</b> .....      | 15,852                     | 7,892                          | 4,795                            | 442                             | 382         | 1,382                           | 891         | 7,961   |
| France .....                   | 4,330                      | 3,137                          | 1,821                            | 199                             | 106         | 591                             | 420         | 1,194   |
| Germany .....                  | 7,770                      | 2,658                          | 1,660                            | 134                             | 185         | 488                             | 191         | 5,112   |
| United Kingdom .....           | 3,752                      | 2,097                          | 1,314                            | 109                             | 91          | 303                             | 280         | 1,655   |
| <b>The Americas total</b> .... | 18,994                     | 9,579                          | 3,709                            | 435                             | 348         | 4,272                           | 815         | 9,415   |
| Canada .....                   | 1,395                      | 656                            | 172                              | 29                              | 80          | 317                             | 58          | 739     |
| Mexico .....                   | 277                        | 127                            | 37                               | 2                               | 13          | 65                              | 10          | 150     |
| United States .....            | 17,322                     | 8,796                          | 3,500                            | 404                             | 255         | 3,890                           | 747         | 8,526   |
| <b>Percent</b>                 |                            |                                |                                  |                                 |             |                                 |             |         |
| <b>Male</b>                    |                            |                                |                                  |                                 |             |                                 |             |         |
| <b>Asia total</b> .....        | 82.3                       | 89.5                           | 86.9                             | 80.5                            | 83.1        | 78.9                            | 95.6        | 74.9    |
| Japan <sup>c</sup> .....       | 83.2                       | 89.6                           | 89.8                             | 92.3                            | 84.3        | 76.6                            | 94.5        | 76.6    |
| South Korea .....              | 80.2                       | 89.5                           | 81.2                             | 69.0                            | 86.0        | 86.6                            | 97.0        | 72.9    |
| Taiwan .....                   | 83.2                       | 89.2                           | 84.8                             | 85.7                            | 61.5        | 74.2                            | 97.7        | 65.9    |
| <b>Europe total</b> .....      | 65.7                       | 72.1                           | 67.3                             | 80.3                            | 61.9        | 68.1                            | 85.6        | 56.6    |
| France .....                   | 60.9                       | 65.0                           | 58.6                             | 77.1                            | 48.8        | 63.7                            | 77.5        | 43.5    |
| Germany .....                  | 67.9                       | 77.5                           | 74.1                             | 82.9                            | 64.5        | 72.5                            | 91.7        | 58.7    |
| United Kingdom .....           | 65.9                       | 72.3                           | 65.6                             | 81.6                            | 68.4        | 67.3                            | 86.6        | 57.2    |
| <b>The Americas total</b> .... | 59.9                       | 66.9                           | 64.5                             | 80.4                            | 71.7        | 48.6                            | 87.9        | 48.2    |
| Canada .....                   | 64.4                       | 73.3                           | 77.6                             | 85.8                            | 63.1        | 49.8                            | 90.9        | 49.2    |
| Mexico .....                   | 62.3                       | 66.2                           | 67.3                             | 81.8                            | 72.9        | 56.7                            | 81.5        | 58.1    |
| United States .....            | 59.4                       | 66.3                           | 65.1                             | 79.8                            | 73.6        | 48.4                            | 87.7        | 47.8    |

See explanatory notes, if any, and SOURCE at end of table.

Appendix table 4-40.

**Earned doctoral degrees in science and engineering in selected countries and regions, by sex and field: 1997 or most recent year**

| Region/country                  | All<br>doctoral<br>degrees | All S&E<br>doctoral<br>degrees | Degree fields                    |                                 |             |                                 |             |         |
|---------------------------------|----------------------------|--------------------------------|----------------------------------|---------------------------------|-------------|---------------------------------|-------------|---------|
|                                 |                            |                                | Natural<br>sciences <sup>a</sup> | Math and<br>computer<br>science | Female      |                                 |             |         |
|                                 |                            |                                |                                  |                                 | Agriculture | Social<br>sciences <sup>b</sup> | Engineering | Non S&E |
| <b>Asia total</b> .....         | 17.7                       | 10.5                           | 13.1                             | 19.5                            | 16.9        | 21.1                            | 4.4         | 25.1    |
| Japan <sup>c</sup> .....        | 16.8                       | 10.4                           | 10.2                             | 7.7                             | 15.7        | 23.4                            | 5.5         | 23.4    |
| South Korea .....               | 19.8                       | 10.5                           | 18.8                             | 31.0                            | 14.0        | 13.4                            | 3.0         | 27.1    |
| Taiwan .....                    | 16.8                       | 10.8                           | 15.2                             | 14.3                            | 38.5        | 25.8                            | 2.3         | 34.1    |
| <b>Europe total</b> .....       | 34.3                       | 27.9                           | 32.7                             | 19.7                            | 38.1        | 31.9                            | 14.4        | 43.4    |
| France .....                    | 39.1                       | 35.0                           | 41.4                             | 22.9                            | 51.2        | 36.3                            | 22.5        | 56.5    |
| Germany .....                   | 32.1                       | 22.5                           | 25.9                             | 17.1                            | 35.5        | 27.5                            | 8.3         | 41.3    |
| United Kingdom .....            | 34.1                       | 27.7                           | 34.4                             | 18.4                            | 31.6        | 32.7                            | 13.4        | 42.8    |
| <b>The Americas total</b> ..... | 40.1                       | 33.1                           | 35.5                             | 19.6                            | 28.3        | 51.4                            | 12.1        | 51.8    |
| Canada .....                    | 35.6                       | 26.7                           | 22.4                             | 14.2                            | 36.9        | 50.2                            | 9.1         | 50.8    |
| Mexico .....                    | 37.7                       | 33.8                           | 32.7                             | 18.2                            | 27.1        | 43.3                            | 18.5        | 41.9    |
| United States .....             | 40.6                       | 33.7                           | 34.9                             | 20.2                            | 26.4        | 51.6                            | 12.3        | 52.2    |

NOTES: Data are compiled from numerous national and international sources, and degree fields may not be strictly comparable. Data for Canada, France, Germany, Japan, Taiwan, the United Kingdom, and the United States are for 1997. Data for Mexico are for 1996.

<sup>a</sup>Natural sciences here include physical, earth, atmospheric, oceanographic, and biological sciences.

<sup>b</sup>Social sciences include psychology, sociology, and other social sciences.

<sup>c</sup>Japanese social science data also include business administration.

SOURCES: **ASIA: Japan**—Ministry of Education, Science, and Culture (Monbusho), *Monbusho Survey of Education* (Tokyo: annual series); **South Korea**—Ministry of Education, *Statistical Yearbook of Education* (Seoul: 1998); **Taiwan**—Ministry of Education, *Educational Statistics of the Republic of China: 1998* (Taipei: 1998); **EUROPE: France**—Ministère de l'Éducation National, *Rapport sur les Études Doctorales* (Paris: 1998); **Germany**—Statistisches Bundesamt, *Prüfungen an Hochschulen* (Wiesbaden: 1998); **United Kingdom**—Higher Education Statistical Agency, *Students in Higher Education Institutions, 1997/98* (Cheltenham: 1999); **THE AMERICAS: Canada**—Association of Universities and Colleges of Canada, unpublished tabulations (1998); **Mexico**—Asociación Nacional de Universidades e Instituciones de Educación Superior, *Anuario Estadístico 1997 Posgrado* (1997); and **United States**—National Science Foundation, Division of Science Resources Studies (NSF/SRS), *Science and Engineering Doctorate Awards: 1997*, NSF 99-323 (Arlington, VA: 1999).

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